

semiconductor device." The Office Action that Nanbu indicates the degree of quality assurance of a tested individual IC chip, concluding that it would have been obvious "to include the teaching of Nanbu in the Cheong system in order to provide general graded data for evaluating a semiconductor device from the standpoint of production yield and quality assurance in a semiconductor production process."

Applicant does not agree. Reconsideration and withdrawal of the rejection is respectfully solicited. For convenience, the limitation of independent claim 1 at issue is reproduced as follows:

a display device for displaying, for an individual semiconductor device that has been inspected the general graded data transported from the data processing section, thereby indicating the degree of quality.

Claims 2 and 3 are dependent from claim 1. Contrary to the statement in the Office Action, no disclosure can be found in Nanbu, including the portions specifically identified, of the concept of general graded data. Rather, Nanbu is concerned with displaying an entire image of a semiconductor wafer and its IC chips with an optimal display size.

It is well settled that all words in a claim must be considered in deciding the patentability of that claim against the prior art; *In re Wilson*, 424 F.2d, 1382, 165 USPQ 494 (CCPA 1970). Each word in a claim must be given its proper meaning, as construed by a person skilled in the art, and no word in a claim can be ignored. Where required to determine the scope of a recited term, the disclosure may be used. *In re Barr*, 444 F.2d 588, 170 USPQ 330 (CCPA 1971). A patentee is free to be his own lexicographer so long as any special definition given to a word is clearly defined in the specification. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995) (*en banc*) *aff'd*, 116 S. Ct 1384 (1996); *Cybor Corp. v. FAS Tech.*, 138 F.3d 1448 (Fed. Cir. 1998) (*en banc*).

In the present invention, for each inspected item, the general graded data pertaining to the

degree of quality assurance is determined and displayed. The quality assurance automatic display system grades inspections in consideration of variations in reliability attributable to a difference between the pieces of inspection and attributable to a difference between inspection methods. The resultant general grade can be provided on the inspected semiconductor device, thereby enabling a user to ascertain the correct degree of quality assurance. Manufacturers of the semiconductor device can set appropriate prices for the semiconductor device in accordance with the correct degree of quality assurance (specification, page 8, line 16+). Thus, not only is it known that the device has passed an inspection or test, but the degree of quality of assurance is also indicated.

The specification clearly sets forth an example that defines the term "general graded data" at page 6, lines 13-25, which is set forth as follows:

The inspection item graded data held in the inspection item data hold section 2a are transported to the data processing section 2b provided in the data processor 2. Subsequently, general graded data pertaining to the degree of quality assurance of the semiconductor device 10 are determined by means of an algorithm employed in the data processing section 2b. The algorithm employed in the data processing section 2b is weighted for each inspection item. For instance, when the inspection item graded data pertaining to an electrical characteristic are determined to be A1, the inspection item graded data pertaining to burn-in are determined to be A1, and inspection item graded data pertaining to another inspection item are determined to be A1, general graded data are determined to be A1. In contrast, when the inspection item graded data pertaining to an electrical characteristic are determined to be A2 and inspection item graded data pertaining to burn-in and inspection item graded data pertaining to another inspection item are determined to be A1, general graded data are determined to be A2.

The general graded data determined by the data processing section 2b of the data processor 2 are transported to the display device 3, where the general graded data are displayed. Here, the display device 3 is embodied in a printer. For example, general graded data, such as "A1" or "A2," can be inscribed directly on a package of the semiconductor device 10 by means of a laser marker.

As thus defined in the specification, the general graded data is derived from the individual grades for the various inspections for an item, to give an indication of quality insurance of the overall inspection, taking into account that one or more inspections grades lower than others. No such concept can be found in Nanbu. Each of the portions of this reference identified in the Office

Action is directed to mapping a display of the wafer under test in maximum size. Thus, as neither Cheong nor Nanbu disclose the claim limitation quoted above, it is submitted that obviousness under 35 U.S.C. § 103 has not been established. The Office Action, although referring to column 1, lines 17-30 of Nanbu, falls short of explaining specifically how it is proposed to modify Cheong or why an artisan would have been motivated to modify the prior art. Such motivation must stem from teachings of the prior art references, not from the application disclosure.

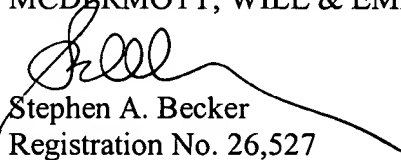
Claims 4 through 6 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Cheong in view of Nanbu and Moore, of record, and Brunner, of record. The latter two references have been relied upon for addressing the additional limitations added by dependent claims 4 through 6. Moore and Brunner provide no teachings that overcome the deficiencies of the prior art with respect to parent claim 1.

In summary, it is submitted that claims 1 through 6 patentably distinguish over the applied prior art. Withdrawal of all rejections and allowance of the application are respectfully solicited.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

MCDERMOTT, WILL & EMERY


Stephen A. Becker
Registration No. 26,527

600 13th Street, N.W.
Washington, DC 20005-3096
(202) 756-8000 GZR:lnm
Date: September 9, 2003
Facsimile: (202) 756-8087